

CONTROLLING RESORPTION OF BIORESORBABLE
MEDICAL IMPLANT MATERIAL

ABSTRACT

The resorption of a medical implant can be controlled with the use of particles embedded in a resorbable bulk material forming the implant or portion thereof. The implant can be removed from a body of a mammal by natural biological mechanisms after use. The resorption of the implant can involve swelling and/or hydrolyzing of the particles within the implant upon contact with a body fluid such that porosity and flow of fluid within the bulk material of the implant is increased. Resorption of the implant may also involve the use of particles with magnetic properties embedded within the implant such that an applied magnetic field causes the particles to vibrate within the bulk material thereby increasing the porosity and thus the flow of fluid, hence facilitating resorption of the implant. The resorption rate of the implant can be controlled by modulating swelling, hydrolysis, or movement of the embedded particles.

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